

Assignment Statements Syntax: Part II Examples

Fractions

Since assignment statements are typed on one line, the algebraic style of fractional notation with a fraction bar will not work; therefore, to specify the beginning and ending of the numerator or denominator, use parentheses. Parentheses around the numerator are necessary if there is more than one term. Parentheses are necessary around the denominator if there is more than one term or there is more than one factor.

Formula for Slope, Given Two Points $m = \frac{y_2 - y_1}{x_2 - x_1}$

Dim **Slope** As Single

Dim **X1** As Single, **Y1** As Single, **X2** As Single, **Y2** As Single

Visual BASIC Assignment Statement Syntax

Slope = (Y2 - Y1) / (X2 - X1)

Constant Declaration

A constant is a value that does not change during the program. You declare the constant by giving it a name and assigning it its value. After that, you will use the identifier (name) you gave the constant throughout the program. Constant identifiers are typed in all capitals. The exact value as a number appears only once in the program. No matter how big the program is and how many times the constant is used, if you need to change the number of decimal places you are going to use for the constant, you will only need to do that at one place -- the constant declaration line of code.

Formula for Circumference of a Circle $C = 2\pi r$

Const **PI** = 3.14159

Dim **Circumference** As Single, **Radius** As Single

Visual BASIC Assignment Statement Syntax

Circumference = 2 * PI * Radius

Exponents

The caret, ^, is the symbol for raising to a power. What comes immediately in front of the caret is the base. What comes immediately after the caret is the exponent. If there are operations in the exponent, the exponent will need to be in parentheses. If a quantity with more than one part is being raised to a power, it must be in parentheses.

Formula for Area of a Square $A = s^2$

Dim **SquareArea** As Single, **SideLength** As Single

Visual BASIC Assignment Statement Syntax

SquareArea = SideLength ^ 2